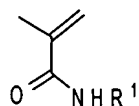


IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): ~~A composition~~ Composition for preparing
~~poly(meth)acrylimides and for producing poly(meth)acrylimide foams according to Figure 5,~~
~~characterized in that comprising~~
methacrylic anhydride,
~~and one, or two or more different, at least one N-methacrylamide:~~



N-methacrylamides [sic] $C_4H_6NOR^1$, according to Figure 6, and/or one, or two or more
different, and at least one primary amines amine: H_2NR^1 ; wherein was added to the
composition, where R^1 or R^2 [sic] may be identical or different are an is a substituted or an
unsubstituted alkyl or a substituted or an unsubstituted aryl radical ~~which has comprising up~~
to 36 carbon atoms ~~and in which oxygen atoms, nitrogen atoms, sulphur atoms, and~~
~~phosphorus atoms in the form of organic functionalities, e.g. an ether function, alcohol~~
~~function, acid function, ester function, amide function, imide function, phosphonic acid~~
~~function, phosphonic ester, phosphinic acid function, phosphinic ester function, sulphonic~~
~~acid function, sulphonic ester function, sulphinic acid function, sulphinic ester function,~~
~~silicon atoms, aluminium atoms and boron atoms, or else halogens, such as fluorine, chlorine,~~
~~bromine or iodine may also be present, R^1 and R^2 may be the methyl~~
~~group, the ethyl group, the n-propyl group, 2-propyl group, n-butyl group, 2-butyl group, 3-~~
~~methyl 2-butyl group, tert-butyl group, the isomers of the propyl, hexyl, heptyl group, the~~
~~isomers of the octyl group, e.g. the 2-ethylhexyl group, the lauryl group, stearyl group, the~~

~~phenyl group, benzyl group, alkylphenyl group, alkylbenzyl group, R^3 -PO(OR³)₂ group,~~
~~where R^3 is an alkyl or aryl radical having up to 20 carbon atoms.~~

Claim 2 (Currently Amended): The composition ~~Composition according to~~ of Claim 1, ~~characterized in that the composition comprises~~ further comprising a blowing agent ~~which is comprising preferably~~ an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an and/or N,N'-dimethylurea, a and/or formamide, and/or water, or a combination thereof.

Claim 3 (Currently Amended): A process ~~Process~~ for producing a polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture ~~composed of~~ comprising (A), (B), (C), (D), and (E) to give a polymer sheet; and foaming the polymer sheet at temperatures from 150 to 250°C; wherein (A) comprises

from 0.7 to 1.3 molar parts of one or more at least one primary amines amine:
 H_2NR^1 [[,]] ; where wherein R^1 is as described above is a substituted or an
unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising
up to 36 carbon atoms, and

from 0.7 to 1.3 molar parts of methacrylic anhydride; wherein (B) comprises

from 0.3 to 2.0 molar parts of methacrylonitrile,

from 0.7 to 2.5 molar parts of methacrylic acid and

from 0 to 0.2 molar part of other monomers having comprising vinyl

unsaturation, where wherein the ratio of the total of the molar parts of (B) and

(A) is (B)/(A) = from 0 to 1 million; wherein (C) comprises

from 0.5 to 15 per cent by weight, based on the total of the weights of components (A) and (B), of a blowing agent; wherein (D) comprises from 0.01 to 0.5 per cent by weight, based on the total of the weights of components (A) and (B), of ~~one or more~~ at least one polymerization ~~initiators~~ initiator; and wherein (E) comprises from 0 to 200 per cent by weight, based on the total of the weights of components (A) and (B), of at least one conventional ~~additives~~ additive ~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from 150 to 250°C.~~

Claim 4 (Currently Amended): A process ~~Process~~ for producing a polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture composed of comprising (A), (B), (C), (D), and (E) to form a polymer sheet; and foaming the polymer sheet at temperatures from 150 to 250°C; wherein (A) comprises

from 0.7 to 1.3 molar parts of ~~one or more~~ at least one primary ~~amines~~ amine: $\text{H}_2\text{NR}^1[[],]$; ~~where~~ wherein R^1 ~~is as described above~~ is a substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms,

from 1.4 to 2.6 molar parts of methacrylic anhydride, and

from 1.4 to 2.6 molar parts of methacrylonitrile; wherein (B) comprises

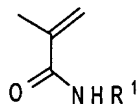
from 0.3 to 2.0 molar parts of methacrylonitrile,

from 0.7 to 2.5 molar parts of methacrylic acid and

from 0 to 0.2 molar ~~part~~ parts of other monomers ~~having~~ comprising vinyl unsaturation, ~~where~~ wherein the ratio of the total of the molar parts of (B) and (A) is (B)/(A) = from 0 to 1 million; wherein (C) comprises from 0.5 to 15 per cent by weight, based on the total of the weights of components (A) and (B), of a blowing agent; wherein (D) comprises from 0.01 to 0.5 per cent by weight, based on the total of the weights of components (A) and (B), of ~~one or more~~ at least one polymerization ~~initiators~~ initiator; and wherein (E) comprises from 0 to 200 per cent by weight, based on the total of the weights of components (A) and (B), of at least one conventional ~~additives~~ additive ~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from 150 to 250°C.~~

Claim 5 (Currently Amended): A process ~~Process~~ for producing a polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture ~~composed of~~ comprising (A), (B), (C), (D), and (E) to form a polymer sheet; and foaming the polymer sheet at temperatures from 150 to 250°C; wherein (A) comprises

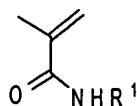
from 10^{-7} to 1.3 molar parts of ~~one or more~~ at least one ~~N-methacrylamides~~ N-methacrylamide:



~~[sic] C₄H₆NOR⁺ according to Figure 6, where~~ wherein R¹ is as described above is a substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms,

from 0.7 to 1.3 molar parts of methacrylic anhydride, and
from 10^{-7} to 1.3 molar parts of methacrylonitrile, ~~where~~ wherein the total of
the molar parts of the methacrylonitrile and of the N-methacrylamide is from
0.7 to 1.3 molar parts; wherein (B) comprises
from 0 to 0.2 molar part of other monomers ~~having~~ comprising vinyl
unsaturation, ~~where~~ wherein the ratio of the total of the molar parts of (B) and
(A) is (B)/(A) = from 0 to 1 million; wherein (C) comprises
from 0.5 to 15 per cent by weight, based on the total of the weights of
components (A) and (B), of a blowing agent; wherein (D) comprises
from 0.01 to 0.5 per cent by weight, based on the total of the weights of
components (A) and (B), of ~~one or more~~ at least one polymerization ~~initiators~~
initiator; and wherein (E) comprises
from 0 to 200 per cent by weight, based on the total of the weights of
components (A) and (B), of at least one conventional ~~additives~~ additive
~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from~~
~~150 to 250°C.~~

Claim 6 (Currently Amended): A process ~~Process~~ for producing a
polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture
~~composed of~~ comprising (A), (B), (C), (D), and (E) to form a polymerized sheet; and foaming
the polymerized sheet at temperatures from 150 to 250°C; wherein (A) comprises
from 0.7 to 1.3 molar parts of ~~one or more~~ at least one N-methacrylamides N-
methacrylamide:



~~[sic] C₄H₆NOR¹~~ according to Figure 6, where wherein R¹ is as described
above is a substituted or an unsubstituted alkyl or a substituted or an
unsubstituted aryl radical comprising up to 36 carbon atoms,

from 0.7 to 1.3 molar parts of methacrylic anhydride, and

from 0.7 to 1.3 molar parts of methacrylonitrile;

wherein (B) comprises

from 0.3 to 2.0 molar parts of methacrylonitrile,

from 0.7 to 2.5 molar parts of methacrylic acid, and

from 0 to 0.2 molar part of other monomers ~~having~~ comprising vinyl

unsaturation, ~~where~~ wherein the ratio of the total of the molar parts of (B) and
(A) is (B)/(A) = from 0 to 1 million;

wherein (C) comprises

from 0.5 to 15 per cent by weight, based on the total of the weights of
components (A) and (B), of a blowing agent;

wherein (D) comprises

from 0.01 to 0.5 per cent by weight, based on the total of the weights of
components (A) and (B), of ~~one or more~~ at least one polymerization initiator
initiators; and wherein (E) comprises

from 0 to 200 per cent by weight, based on the total of the weights of
components (A) and (B), of at least one conventional additives additive

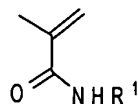
~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from~~
~~150 to 250°C.~~

Claim 7 (Currently Amended): A process ~~Process~~ for producing a polymethacrylimide foam, ~~characterized in that~~ comprising polymerizing a mixture ~~composed of~~ comprising (A), (B), (C), (D) and (E) to form a polymer sheet; and foaming the polymer sheet at temperatures from 150 to 250 °C; wherein (A) comprises

from 0 to 2.6 molar parts of ~~one or more~~ at least one primary amines amine:

H_2NR^1 ~~[[,]]~~ ; ~~where wherein~~ wherein R^1 ~~is as described above~~ is a substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms,

from 0 to 5.2 molar parts of ~~one or more~~ at least one N-methacrylamides N-methacrylamide:



$\text{C}_4\text{H}_6\text{NOR}^1$ ~~according to Figure 6, where wherein~~ wherein R^1 ~~is as described above~~ is a substituted or an unsubstituted alkyl or a substituted or an unsubstituted aryl radical comprising up to 36 carbon atoms,

from >0 to 6.5 molar parts of methacrylic anhydride,

from 0 to 3.9 molar parts of methacrylonitrile, and

from 0 to 1.3 molar parts of methacrylic acid;

wherein (B) comprises

from 0.3 to 2.0 molar parts of methacrylonitrile,

from 0.7 to 2.5 molar parts of methacrylic acid, and

from 0 to 0.2 molar part of other monomers ~~having~~ comprising vinyl

unsaturation, ~~where wherein~~ wherein the ratio of the total of the molar parts of (B) and

(A) is $(\text{B})/(\text{A}) =$ from 0 to 1 million;

wherein (C) comprises

from 0.5 to 15 per cent by weight, based on the total of the weights of components (A) and (B), of a blowing agent;

wherein (D) comprises

from 0.01 to 0.5 per cent by weight, based on the total of the weights of components (A) and (B), of ~~one or more~~ at least one polymerization initiator initiators; and wherein (E) comprises

from 0 to 200 per cent by weight, based on the total of the weights of components (A) and (B), of at least one conventional ~~additives~~ additive

~~is polymerized to give a sheet, and then this polymer sheet is foamed at temperatures of from 150 to 250°C.~~

Claim 8 (Currently Amended): ~~Process~~ The process of according to any of Claims 3 to 7 Claim 3, characterized in that wherein the blowing agent ~~used~~ comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, ~~and/or an~~ N,N'-dimethylurea, ~~and/or a~~ formamide, ~~and/or water~~, or a combination thereof.

Claims 9-13 (Canceled).

Claim 14 (New): A poly(meth)acrylimide foam produced by the process of Claim 3.

Claim 15 (New): A laminate comprising the poly(meth)acrylimide foam of Claim 14.

Claim 16 (New): An automobile comprising the poly(meth)acrylimide foam of Claim 14.

Claim 17 (New): A rail vehicle comprising the poly(meth)acrylimide foam of Claim 14.

Claim 18 (New): A watercraft comprising the poly(meth)acrylimide foam of Claim 14.

Claim 19 (New): A rotor comprising the poly(meth)acrylimide foam of Claim 14.

Claim 20 (New): The process of Claim 4, wherein the blowing agent comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an N,N'-dimethylurea, a formamide, water, or a combination thereof.

Claim 21 (New): The process of Claim 5, wherein the blowing agent comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an N,N'-dimethylurea, a formamide, water, or a combination thereof.

Claim 22 (New): The process of Claim 6, wherein the blowing agent comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an N,N'-dimethylurea, a formamide, water, or a combination thereof.

Claim 23 (New): The process of Claim 7, wherein the blowing agent comprises an aliphatic alcohol having from 3 to 8 carbon atoms, a urea, a monomethyl urea, an N,N'-dimethylurea, a formamide, water, or a combination thereof.

Claim 24 (New): The composition of Claim 1, wherein R¹ further comprises oxygen atoms, nitrogen atoms, sulphur atoms, phosphorus atoms, silicon atoms, aluminium atoms, boron atoms, fluorine atoms, chlorine atoms, bromine atoms, iodine atoms, or a combination thereof.

Claim 25 (New): The composition of Claim 1, wherein R¹ is a methyl group, an ethyl group, an n-propyl group, a 2-propyl group, an n-butyl group, a 2-butyl group, a 3-methyl-2-butyl group, a tert-butyl group, an isomer of the propyl, hexyl, and heptyl groups, an isomer of the octyl group, a 2-ethylhexyl group, a lauryl group, a stearyl group, a phenyl group, a benzyl group, an alkylphenyl group, an alkylbenzyl group, or an R³ PO(OR³)₂ group, wherein R³ is an alkyl or aryl radical having up to 20 carbon atoms.